

IN THE CLAIMS:

1. (currently amended) A method for producing a printing form for rotogravure, comprising the steps of:

providing a surface of the rotogravure printing form with a wear-resistant layer having a Vickers hardness greater than 110 kp/mm²; and

thereafter providing rotogravure cups, differing volumes of which determine differing corresponding tone values in the surface wear-resistant layer.

2. (cancelled)

3. (cancelled)

4. (previously presented) The method according to claim 1 wherein the wear-resistant layer is a layer made of a composite material.

5. (previously presented) The method according to claim 4 wherein the composite material is comprised of a mixture of a synthetic and particulate elements.

6. (previously presented) The method according to claim 5 wherein the particulate elements are formed from silica sand.

7. (previously presented) The method according to claim 1 wherein the wear-resistant layer comprises a metallic layer.

8. (previously presented) The method according to claim 7 wherein the metallic layer is comprised of chromium.

9. (previously presented) The method according to claim 1 wherein the layer is provided on the printing form by means of one of a PVD and a CVD method.

10. (previously presented) The method according to claim 7 wherein the metallic layer is galvanically provided on the printing form.

11. (previously presented) The method according to claim 1 wherein a thickness of the layer is selected such that the cups are only partially provided in the layer.

12. (previously presented) The method according to claim 1 wherein a thickness of the layer is selected so that the cups are completely provided in the layer.

13. (previously presented) The method according to claim 1 wherein the wear-resistant layer is between 20 to 50 μm thick.

14. (previously presented) The method according to claim 1 wherein a depth of the cups provided in the surface of the printing form is in a range between 15 and 35 μm .

15. (currently amended) The method according to claim 2 1 wherein the cups are provided in the wear-resistant layer via engraving.

16. (previously presented) The method according to claim 15 wherein the engraving occurs by means of a mechanical engraving unit.

17. (previously presented) The method according to claim 16 wherein the engraving occurs by means of laser light.

18. (previously presented) The method according to claim 17 wherein the cups are directly provided by means of laser light.

19. (currently amended) The method according to claim 2 1 wherein the cups are provided in the wear-resistant layer via etching.

20. (previously presented) The method according to claim 19 wherein before implementation of the etching event, one of a photoresist and a thermoresist is applied to the wear-resistant layer to form an etching mask.

21. (previously presented) The method according to claim 19 wherein the etching mask is illustrated by means of laser light.

22. (previously presented) The method according to claim 1 wherein a surface of the wear-resistant layer is designed rough with a predetermined degree of roughness.

23. (previously presented) The method according to claim 22 wherein the degree of roughness corresponds to that of microroughness.

24. (previously presented) The method according to claim 22 wherein the roughness is provided by at least one of polishing and grinding of the surface.

25. (previously presented) The method of claim 1 wherein the printing form is for heliorotogravure.

26. (currently amended) A printing form for rotogravure wherein a surface of the rotogravure printing form comprises a wear-resistant layer, the wear-resistant layer having a Vickers hardness greater than 110 kp/mm² and wherein the wear-resistant layer is designed for having rotogravure cups at least one of etched and engraved therein, differing volumes of the cups determining differing corresponding tone values.

27. (previously presented) The printing form according to claim 26 wherein the printing form is for heliorotogravure.

28. (cancelled)

29. (previously presented) The printing form according to claim 26 wherein the wear-resistant layer is a layer made of a composite material.

30. (previously presented) The printing form according to claim 29 wherein the composite material is comprised of a mixture of a synthetic and particulate elements.

31. (previously presented) The printing form according to claim 30 wherein the particulate elements are formed from silica sand.

32. (previously presented) The printing form according to claim 26 wherein the wear-resistant layer comprises a metallic layer.

33. (previously presented) The printing form according to claim 32 wherein the metallic layer is comprised of chromium.

34. (previously presented) The printing form according to claim 26 wherein a thickness of the layer is selected such that the cups are only partially provided in the layer.

35. (previously presented) The printing form according to claim 26 wherein a thickness of the layer is selected so that the cups are completely provided in the layer.

36. (previously presented) The printing form according to claim 26 wherein the wear-resistant layer is between 20 to 50 μm thick.

37. (previously presented) The printing form according to claim 26 wherein a depth of the cups provided in the surface of the printing form is in a range between 15 and 35 μm .

38. (previously presented) The printing form according to claim 26 wherein the cups provided in the wear-resistant layer are engraved cups.

39. (previously presented) The printing form according to claim 26 wherein the cups provided in the wear-resistant layer are etched cups.

40. (previously presented) The printing form according to claim 26 wherein the cups are laser light engraved cups.

41. (previously presented) The printing form according to claim 26 wherein a surface of the wear-resistant layer is designed rough with a predetermined degree of roughness.

42. (previously presented) The printing form according to claim 41 wherein the degree of roughness corresponds to that of microroughness.

43. (previously presented) The printing form according to claim 41 wherein the roughness is provided by at least one of polishing and grinding of the surface.

44. (currently amended) A rotogravure printing form ~~for rotogravure~~, comprising:

a core;

a wear-resistant layer overlying the core;

the wear-resistant layer having a Vickers hardness greater than 110 kp/mm²;

and

~~cups engraved in the wear-resistant layer~~ the wear resistant layer being designed for at least one of engraving and etching of rotogravure cups therein where differing volumes of the cups determine differing corresponding tone values.

45. (currently amended) A printing form according to claim 43 ~~44~~ wherein the a base layer is provided between the wear-resistant layer and the core.

46. (currently amended) ~~The printing form according to claim 44~~ A printing form for rotogravure, comprising:

a core;

a wear-resistant layer overlying the core;

the wear-resistant layer having a Vickers hardness greater than 110 kp/mm²;

cups engraved in the wear-resistant layer;

a base layer provided between the wear-resistant layer and the core; and

wherein the cups extend through the wear-resistant layer and partially into said base layer.

47. (currently amended) A rotogravure printing form ~~for rotogravure~~, comprising:

a core;

a wear-resistant layer overlying the core;

the wear-resistant layer having a [hardness greater than a] Vickers hardness [of] greater than 110 kp/mm² ~~the core~~; and

rotogravure cups engraved in the wear-resistant layer, differing volumes of the cups determining differing corresponding tone values .

48. (previously presented) The form of claim 47 wherein a base layer is provided between the wear-resistant layer and the core and the wear-resistant layer has a hardness greater than a hardness of the base layer.

49. (new) The form of claim 47 wherein the wear-resistant layer has a hardness greater than a hardness of the core.

50. (new) The form of claim 47 wherein the wear-resistant layer is not copper.